

Listing of the Claims:

1. (CURRENTLY AMENDED) A component of an adjustment mechanism for a vehicle roof of a convertible vehicle, wherein the component includes:

a recess and a flange edge surrounding the recess, wherein the recess and the flange edge surrounding the recess are located in a limited load area of the component;

wherein the component (1) of an adjustment mechanism for a vehicle roof of a convertible, designed to be adjustable between a first position and a second position, which is and the component is exposed to alternating loads as a function of its the position; and

wherein the component is topologically and/or topographically designed for the alternating loads acting on the component (1) for a predefined design space, so such that a uniform stress distribution is at least approximately present in the component at least during critical load situations; (1), at least in critical load situations, and the component (1) is designed in the areas with limited load with less use of material than in the areas with higher load, or with a recess (2)

wherein the component is a sheet-metal part having an open profile produced by a sheet deformation process.

2. (CURRENTLY AMENDED) A component according to Claim 1,
characterized in that including a reinforcing part (5; 5A; 5B) is arranged in at least in one of an area with lowerless material use or in and an area of a recess, (2).

3. (CURRENTLY AMENDED) A component according to Claim 1,
characterized in that including a reinforcing part (5; 5A; 5B) that is designed, at least partially, as an element firmly connected to a wall of the component (1).

4. (CURRENTLY AMENDED) A component according to Claim 1,
wherein the sheet-metal part is produced from steel, characterized in that the component is designed as a cast part.

5. (CURRENTLY AMENDED) A component according to Claim 1,
wherein the sheet-metal part is produced from two or more individual parts
connected to one another, characterized in that the component is designed as a milled part.
6. (CURRENTLY AMENDED) A component according to ~~Claim 5~~Claim 1,
wherein the component includes several individual parts connected to one another
to form a closed profile, at least in some areas,
wherein each of the several individual parts are designed to be topologically and
topographically adapted to the alternating loads acting on the component; and
wherein the several individual parts are connected to one another via
welding, characterized in that the component is produced from an aluminum or magnesium alloy.
7. – 12. (CANCELED).
13. (NEW) A method for producing the component according to Claim 1, including:
developing a two-dimensional line kinematics based on two-dimensional rod
parts;
determining a collision-free arrangement of an adjustment mechanism based on
three-dimensional rod parts;
utilizing multi-element simulation analysis to determine resulting forces that
occur in the three-dimensional rod parts under at least one of predefined load situations and
critical load situations;
determining resulting forces and resulting moments at articulation points between
each of the three-dimensional rod parts; and
calculating at least one of a topological optimization, a topographically
optimization and a theoretical determination of a shape-optimized geometry of a component of
the adjustment mechanism..
14. (NEW) The method according to Claim 13, further including performing a control
calculation for the component by comparative stress analysis, wherein the control calculation is
based on terms of manufacture and optimized as a function of a favorable component weight-
rigidity ratio.

15. (NEW) The method according to Claim 13, wherein developing a two-dimensional line kinematics is carried out with consideration of design stipulations.